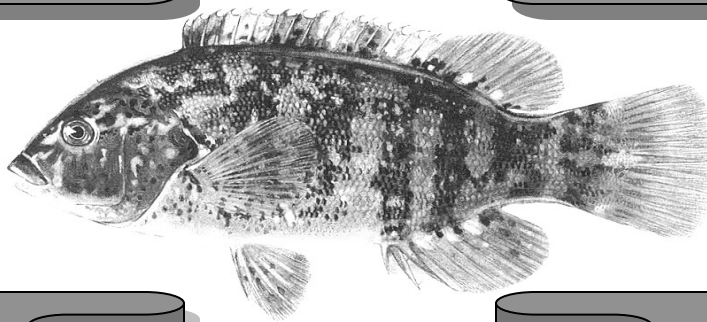


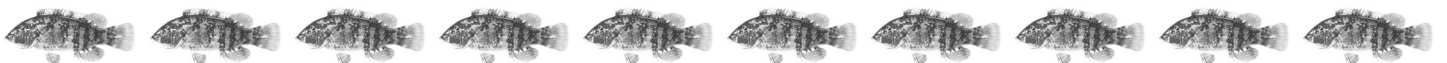
DELAWARE REEF GUIDE

2011-2012

IF YOU BUILD IT



THEY WILL COME



Delaware's Artificial Reef Program is funded under the Federal Aid in Fisheries Restoration Act
by the Delaware Division of Fish and Wildlife

ABOUT THE COVER

In this photo, the 563' Arthur W. Radford, a retired NAVY destroyer vessel is towed to a private dock for preparation as a reefing candidate in June, 2010. As this edition of the Delaware Artificial Reef Guide goes to print, work is drawing to a close, and a spring/summer 2011 sinking is anticipated. This is a joint effort funded by the Delaware, New Jersey, and Maryland reef programs and the NAVY. The Radford will be sunk on the Del-Jersey-Land Reef site, 26 miles S.E. of Indian River Inlet, in 135' of water.

Photo credit: Hugh Carberry

THE DELAWARE REEF PROGRAM

Delaware has fourteen permitted artificial reef sites in Delaware Bay and along the Atlantic Coast. Development of these sites began in 1995 and will continue in the future. The Delaware Reef Program is one part of a comprehensive fisheries management effort and is designed to enhance fisheries habitat, benefit structure-oriented fish and provide fishing opportunities for anglers

Reef construction is especially important in the Mid-Atlantic Region, where near shore bottom is usually featureless sand or mud. We have neither the natural rocky outcrops common in New England nor the coral reefs of our Southeastern Atlantic Coast. Durable, stable, non-toxic reef materials can develop an invertebrate community which is hundreds of times richer than adjacent bottom, providing food and physical protection for reef fish such as tautog, sea bass, scup, spadefish and triggerfish. In addition, game fish such as flounder, bluefish, striped bass, weakfish, tunas and sharks are attracted to baitfish, which congregate around reef structure.

Recycled materials have supported reef development efforts to date. Donated concrete culvert pipe and other concrete products are the primary materials used at the eight Delaware Bay sites. Ballasted tire units have been deployed at the three ocean sites. To date, over 74,000 tons of concrete products, 9,000 tons of ballasted tire units and 86 decommissioned military vehicles. Retired vessels have become an important part of the Reef Program in recent years with 17 vessels from 40-180' sunk on 7 reef sites. An additional three vessels and six barges are under contract for sinking in 2009.

The reef program uses DGPS (Differential Global Positioning System) to accurately place materials on site. The site charts in the reef guide show where reef materials have been deployed from 1995—2005. Locations (latitude—longitude) noted for each site indicate the position of deployments of reef material from an anchored barge. In the case of large, concentrated reef deployments, a latitude or longitude range, may be given such as: N 39° 15.377' - 402'. This indicates material occurs between 39 degrees, 15.377 to 15.402 minutes north latitude. Due to variability between DGPS receivers, slight variation in readings may occur. It is suggested you use your GPS and a good fathometer to locate reef structure, then note the coordinates on your own GPS.

ENJOY FISHING DELAWARE'S REEFS

Key to Reading the Reef Charts.

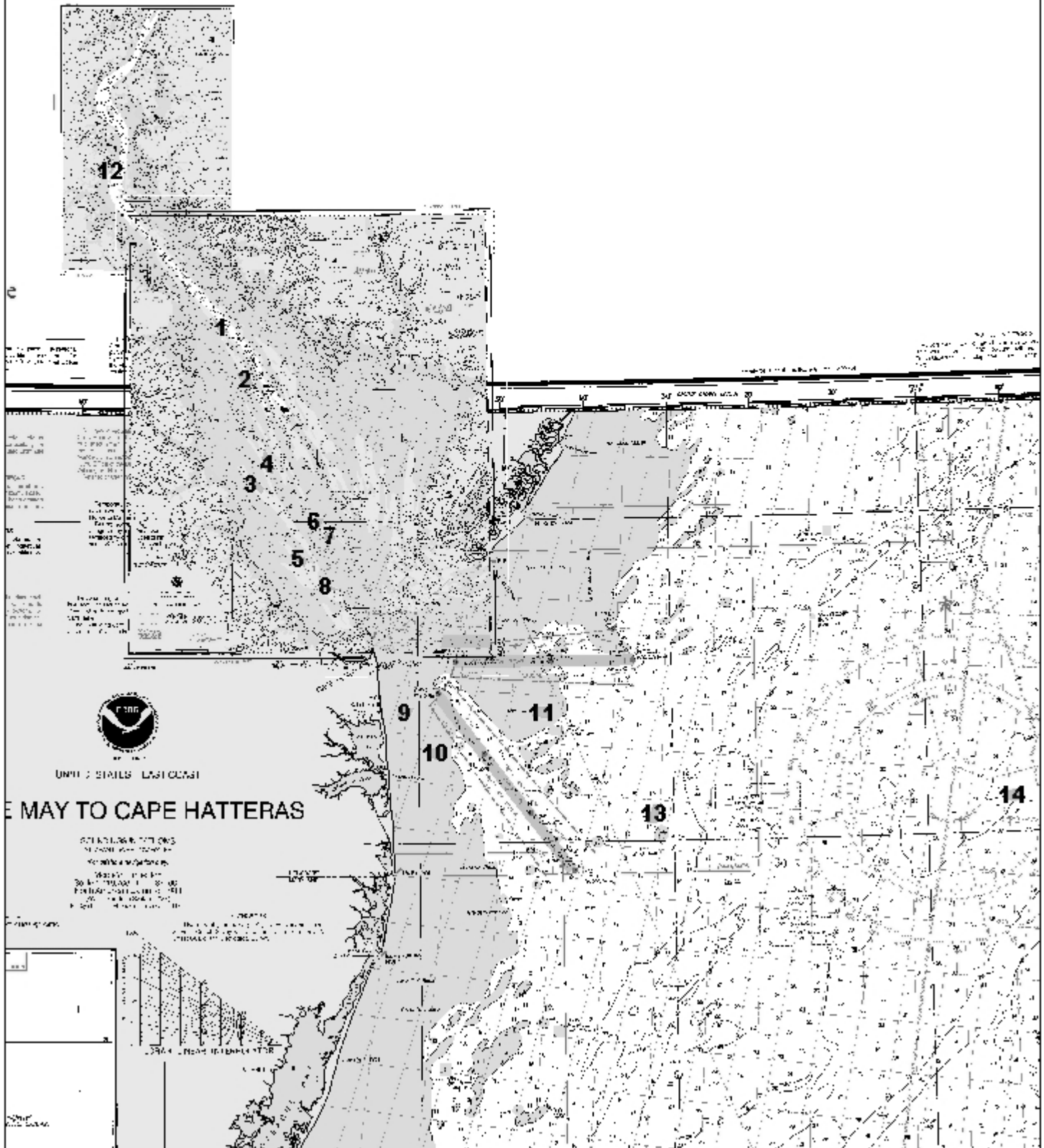


= Reef material plotted from periodic sidescan sonar surveys



= Position of reef material on deployments made since the last sidescan survey of the site.

GENERAL LOCATION OF DELAWARE'S FOURTEEN PERMITTED ARTIFICIAL REEF SITES



DELAWARE ARTIFICIAL REEF SITES:

DESCRIPTIONS AND COORDINATES

Site #1

Total area of site	-	0.41 square nautical miles
Depth range	-	17-30' (mean low water)
Distance from port	-	5.2 nautical miles from Port Mahon
Invertebrate Colonization	-	oyster, barnacle, hydroid community
Fish	-	sea bass plus pelagic species (weakfish, striped bass)

Deployments

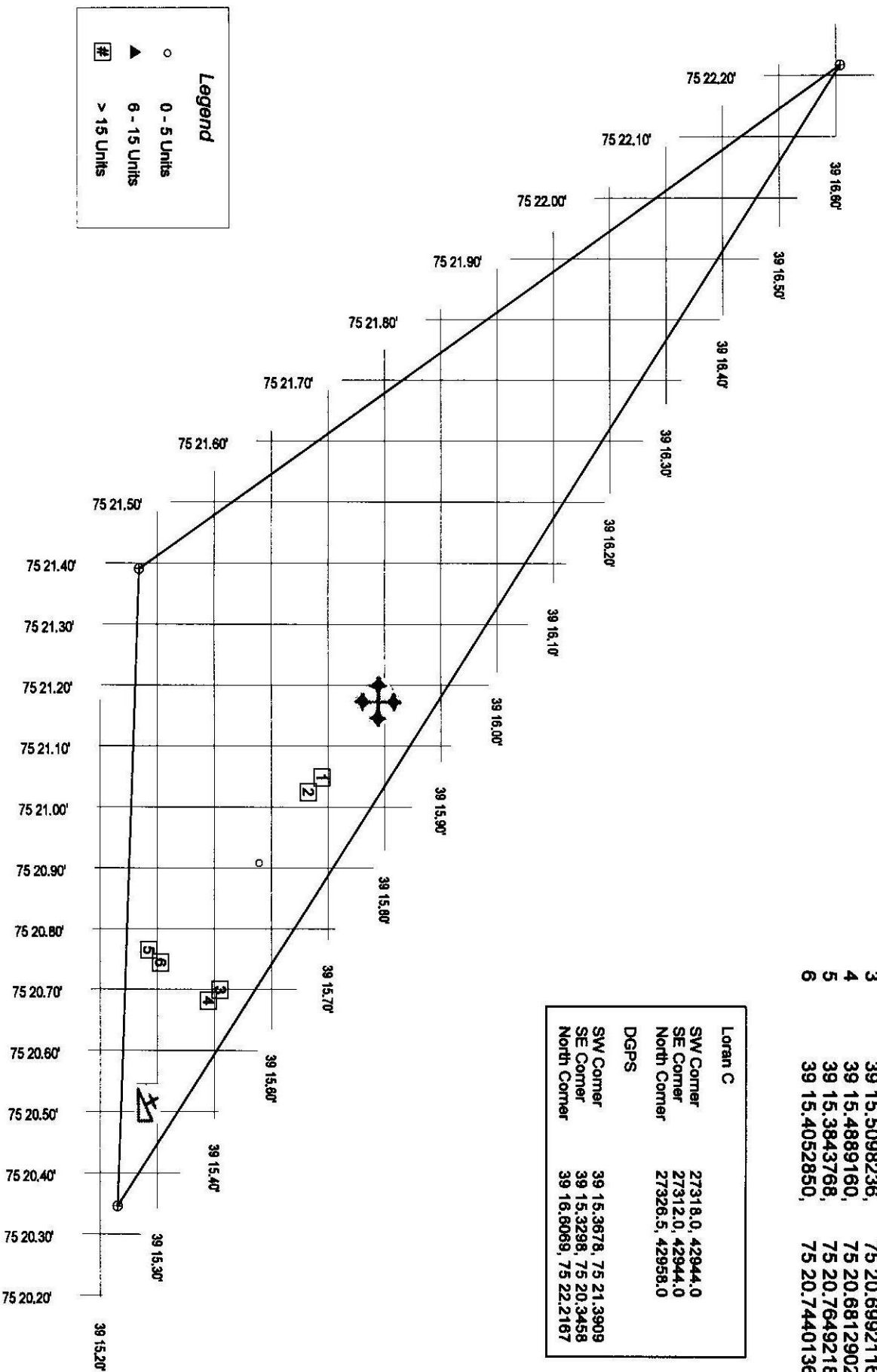
1. 500 tons of concrete culvert deployed from an anchored barge 3/28/96. Depth about 30'.
N 39° 15.559'
W 075° 20.689'
2. 500 tons of concrete culvert deployed from an anchored barge 9/15/98. Depth about 29'.
N 39° 15.377' - .402'
W 075° 20.750' - .777'
3. 1,690 tons of concrete culvert deployed from an anchored barge 1/09/03.
N 39° 15.685'
W 075° 21.032'
4. 782 tons of concrete culvert deployed from an anchored barge 7/3/04.
N 39° 15.685'
W 075° 21.032'
5. 1,582 tons of concrete culvert deployed from and anchored barge 7/10/04.
N 39° 15.788'
W 075° 21.177'
6. 40' steel hull pilot boat
N 39° 15.519'
W 075° 20.753'

Notes

Delaware Artificial Reef Site 1 Material Distribution

ID	Latitude,	Longitude
1	39 15.6890328,	75 21.0486696
2	39 15.6651384,	75 21.0247752
3	39 15.5098236,	75 20.6992116
4	39 15.4889160,	75 20.6812902
5	39 15.3843768,	75 20.7649218
6	39 15.4052850,	75 20.7440136

Loran C	
SW Corner	27318.0, 42944.0
SE Corner	27312.0, 42944.0
North Corner	27326.5, 42958.0
DGPS	
SW Corner	39 15.3678, 75 21.3909
SE Corner	39 15.3298, 75 20.3458
North Corner	39 16.6069, 75 22.2167



Site #2

Total are of site	-	0.71 square nautical miles
Depth range	-	16-28' (mean low water)
Distance from port	-	3.8 nautical miles from Port Mahon
Invertebrate Colonization	-	oyster, barnacle, hydroid community
Fish	-	sea bass plus pelagic species (weakfish, striped bass)

Deployments

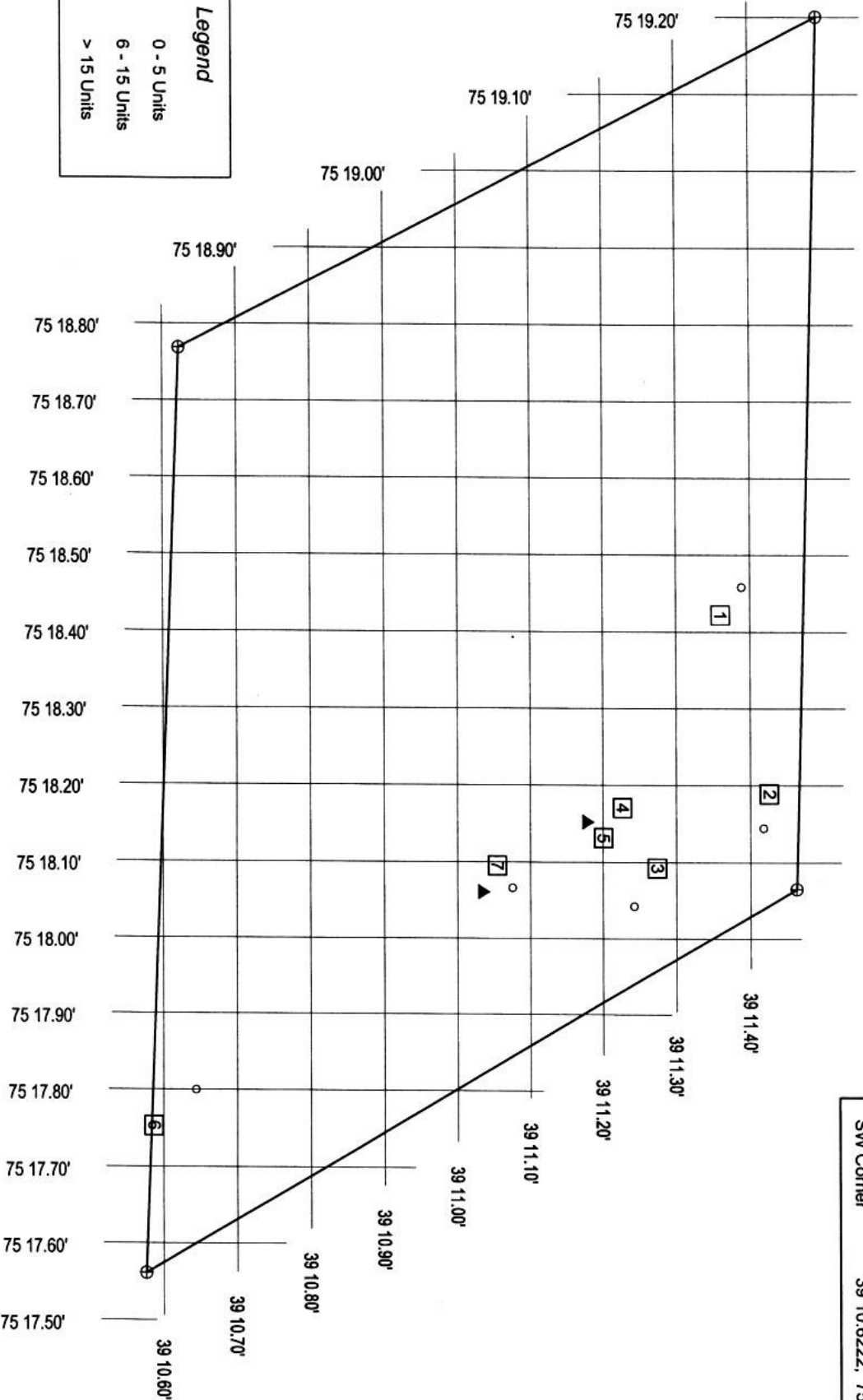
1. 500 tons of concrete culvert deployed 3/28/96. Depth about 22'.
N 39° 11.335'
W 075° 18.379'
2. 500 tons of concrete culvert deployed 9/15/98. Depth 26'.
N 39° 11.038'
W 075° 18.033'
3. 886 tons of concrete culvert deployed 6/20/00. Depth 28.5'.
N 39° 10.565 - 70'
W 075° 17.774 - 86'
4. 1,100 tons of concrete culvert deployed 5/11/02. Depth 28'.
N 39° 11.265'
W 075° 18.097'
5. 1,000 tons of concrete culvert deployed 12/23/02. Depth 28'.
N 39° 11.181'
W 075° 18.146'
6. 1,610 tons of concrete culvert deployed 11/07/03.
N 39° 11.426'
W 075° 18.177'

Notes

Delaware Artificial Reef Site 2 Material Distribution

ID	Latitude,	Longitude
1	39 11.3601486,	75 18.4218708
2	39 11.4254856,	75 18.1892724
3	39 11.2739046,	75 18.0925740
4	39 11.2268616,	75 18.1709778
5	39 11.2007274,	75 18.1317762
6	39 10.5865620,	75 17.7528228
7	39 11.0543730,	75 18.0951876

Loran C	
NW Corner	27294.0, 42900.0
NE Corner	27287.5, 42900.0
SE Corner	27282.0, 42890.0
SW Corner	27289.0, 42890.0
DGPS	
NW Corner	39 11.4938, 75 19.2003
NE Corner	39 11.4623, 75 18.0655
SE Corner	39 10.5760, 75 17.5611
SW Corner	39 10.6222, 75 18.7686



Site #3

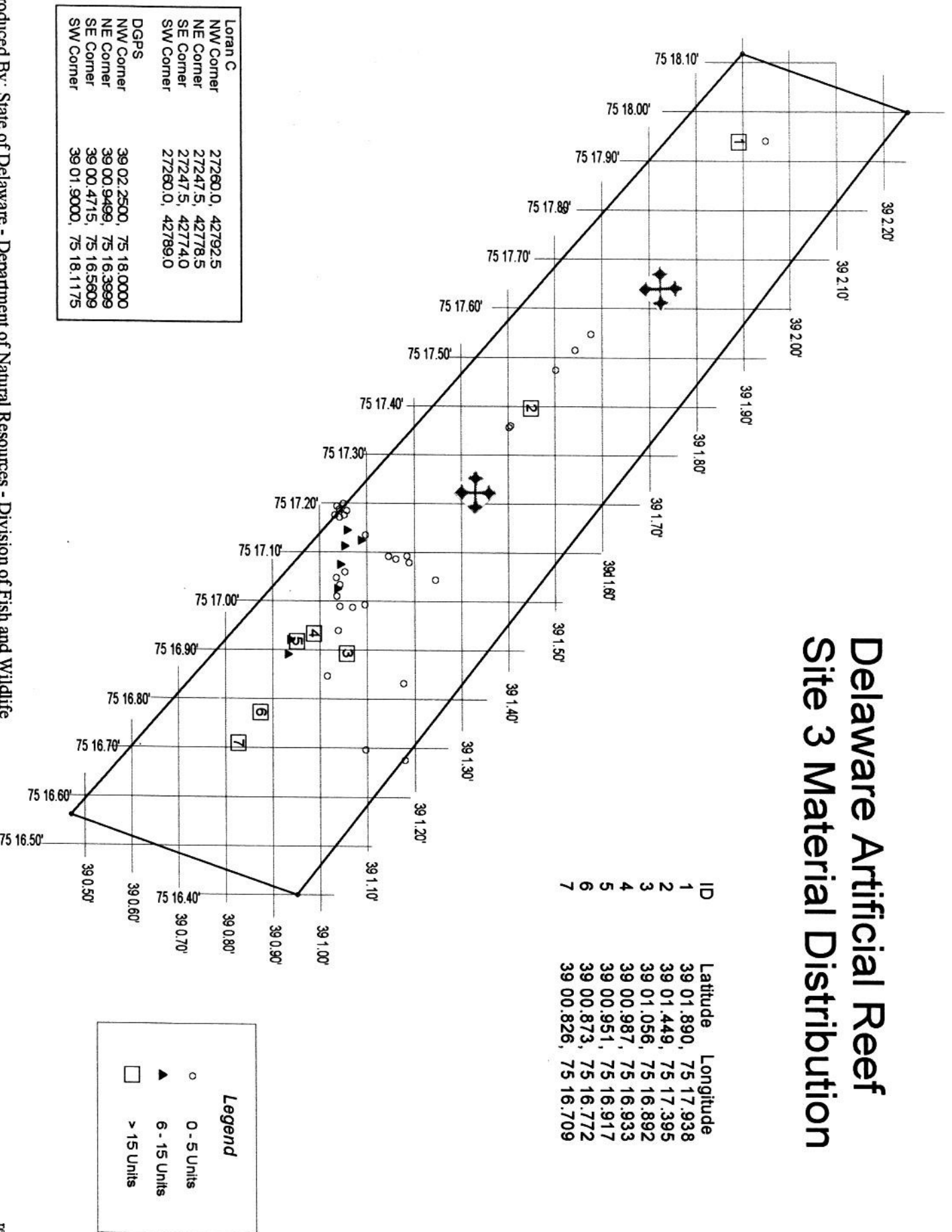
Total area of site	-	0.68 square nautical miles
Depth range	-	18-28' (mean low water)
Distance from port	-	6.5 nautical miles from Bowers Beach 6.0 nautical miles from Mispillion River
Invertebrate Colonization	-	blue mussel, sulfur sponge community
Fish	-	sea bass, weakfish, striped bass, bluefish

Deployments

1. 500 tons of concrete culvert deployed 1/15/96.
2. 1,000 tons of concrete culvert deployed from an anchored barge 5/14/97. Water depth about 32'.
N 39° 01.054' - .087'
W 075° 16.882' - .895'
3. 807 tons of concrete culvert deployed 6/1/00. Depth 30'.
N 39° 00.881' - .84'
W 075° 16.749' - .772'
4. 961 tons of concrete culvert deployed 7/7/00. Depth 34'.
N 39° 00.928' - .81'
W 075° 16.914' - .29'
5. 1,300 tons of concrete deployed 7/15 / 01.
N 39° 01.888'
W 075° 17.936'
6. 1,000 tons of concrete deployed 6/10/02. Depth 28'.
N 39° 01.449'
W 075° 17.395'
7. 1,092 tons of concrete deployed 4/14/03. Depth 26.
N 39° 01.730'
W 075° 17.640'
8. 1,590 tons of concrete deployed 3/11/04. Depth 26'.
N 39° 01.339'
W 075° 17.242'

Notes

Delaware Artificial Reef Site 3 Material Distribution



Site #4

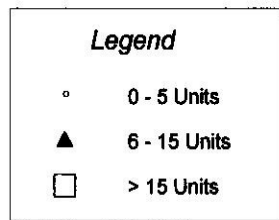
Total area of site	-	0.63 square nautical miles
Depth range	-	30-38' (mean low water)
Distance from port	-	6 nautical miles from Bowers Beach 7 nautical miles from Mispillion River
Invertebrate Colonization	-	blue mussel community
Fish	-	sea bass, weakfish, striped bass, tautog

Deployments

1. 500 tons of concrete culvert deployed from a moving barge.
2. 900 tons of concrete culvert deployed from an anchored barge on 2/12/97. Depth about 38'.
N 39° 03.712'
W 075° 16.051'
3. 1,000 tons of concrete deployed on 10/2/97. Approximate depth 35'.
N 39° 03.560'
W 075° 16.070'
4. 1,100 tons of concrete deployed on 3/21/99. Depth 37'.
N 39° 03.358 – 386'
W 075° 5.990 – 16.031'
5. 850 tons of concrete deployed on 4/8/99. Depth 42'.
N 39° 02.621'
W 075° 15.695'
6. 1,192 tons of concrete deployed 3/28/03. Depth 38.
N 39° 03.065'
W 075° 15.724'
7. 1,511 tons of concrete deployed 7/7/04.
N 39° 02.853'
W 075° 15.805'
8. 1,407 tons of concrete deployed 11/02/05. Depth 34'.
N 39° 03.342'
W 075° 15.743'

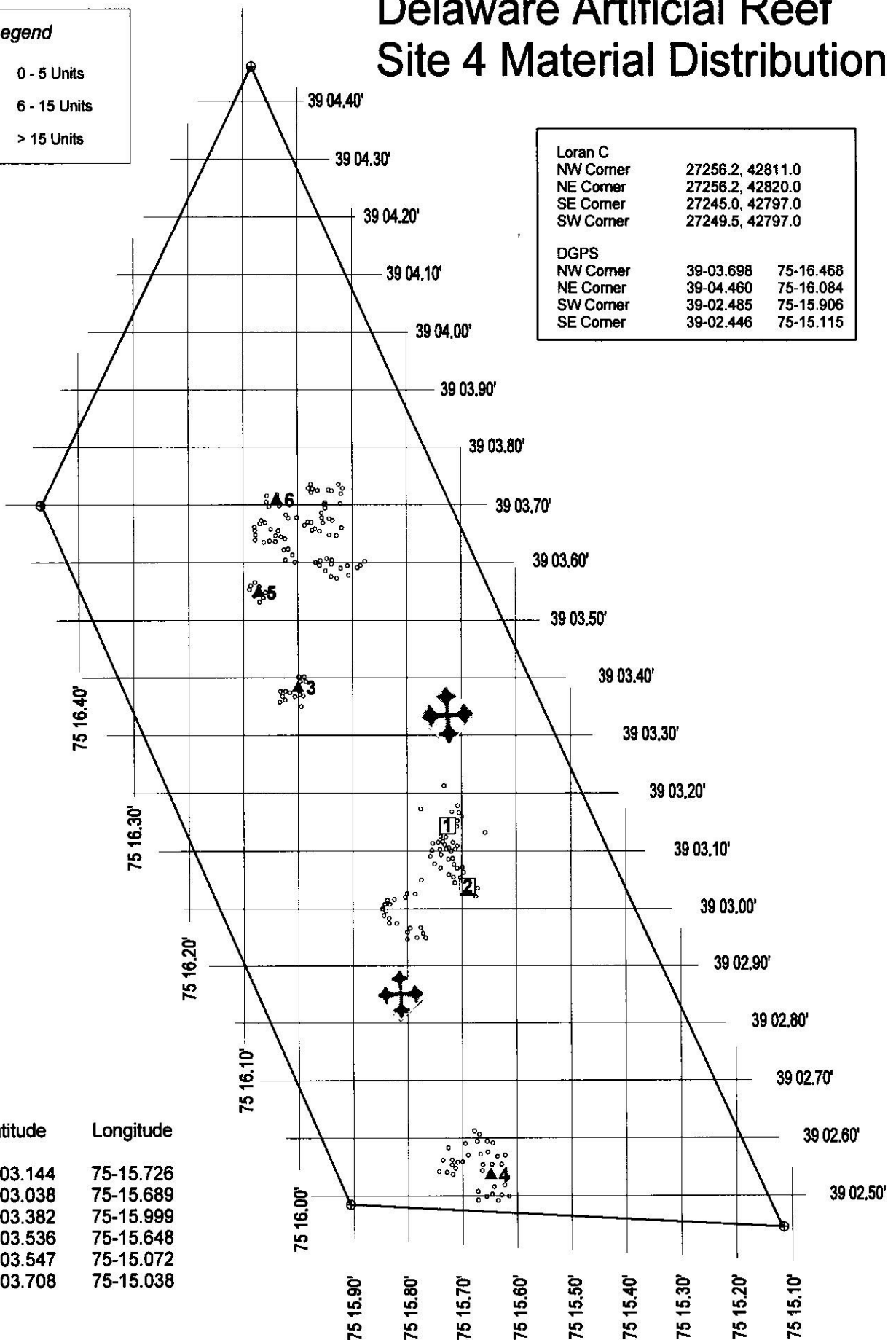
Notes

Delaware Artificial Reef Site 4 Material Distribution



Loran C		
NW Corner	27256.2	42811.0
NE Corner	27256.2	42820.0
SE Corner	27245.0	42797.0
SW Corner	27249.5	42797.0
DGPS		
NW Corner	39-03.698	75-16.468
NE Corner	39-04.460	75-16.084
SW Corner	39-02.485	75-15.906
SE Corner	39-02.446	75-15.115

ID	Latitude	Longitude
1	39-03.144	75-15.726
2	39-03.038	75-15.689
3	39-03.382	75-15.999
4	39-03.536	75-15.648
5	39-03.547	75-15.072
6	39-03.708	75-15.038



Site #5

Total area of site	-	0.65 square nautical miles
Depth range	-	18-24' (mean low water)
Distance from port	-	4.5 nautical miles from Mispillion River 8.5 nautical miles from Roosevelt Inlet
Invertebrate Colonization	-	blue mussel, sulfur sponge community
Fish	-	sea bass, tautog, scup, weakfish

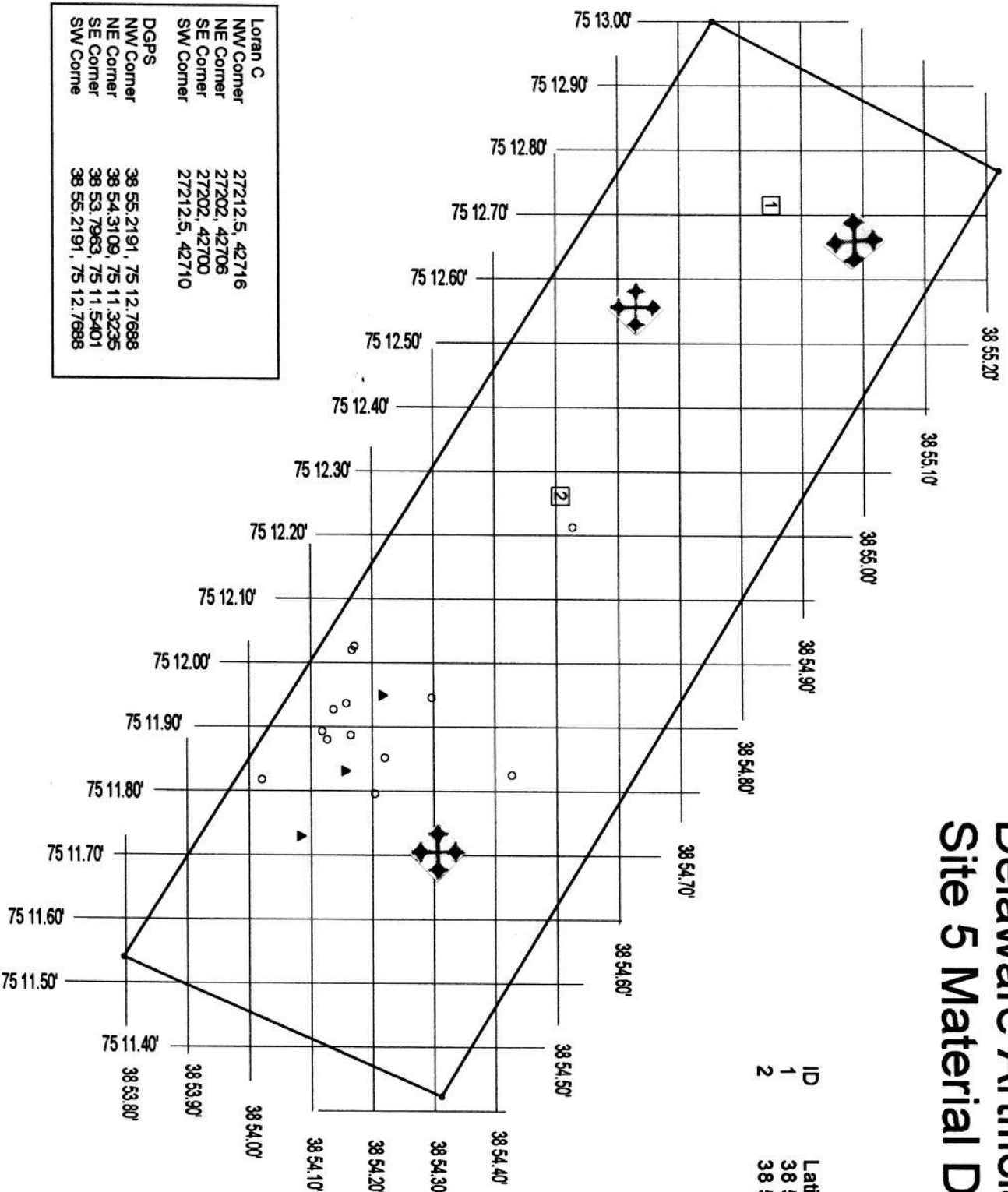
Deployments

1. 91 large rectangular concrete structures deployed from a moving barge 7/6/95. Depth about 22'.
2. 1,000 tons of concrete culvert deployed on 8/17/97. Approximate depth 25'.
N 38° 54.095'
W 075° 11.670'
3. 997 tons of concrete culvert deployed on 7/12/00. Depth 26'.
N 38° 54.476 – 96'
W 075° 12.224 - 59'
4. 1,100 tons of concrete deployed on 6/11/01.
N 38° 54.218'
W 075° 11.952'
5. 1,300 tons of concrete deployed on 8/10/01.
N 38° 54.092'
W 075° 11.732'
6. 1,098 tons of concrete deployed on 7/29/02.
N 38° 54.850'
W 075° 12.715'
7. 1,087 tons of concrete deployed on 12/29/02.
N 38° 54.638'
W 075° 12.567'
8. 1,085 tons of concrete deployed on 4/25/03.
N 38° 54.303'
W 075° 11.684'
9. 1,588 tons of concrete deployed on 8/24/04.
N 38° 54.983'
W 075° 12.657'
10. 1,100 tons of concrete deployed 3/30/06.
N 38° 54.306'
W 075° 11.710'

Notes

Delaware Artificial Reef Site 5 Material Distribution

ID	Latitude, Longitude
1	38 54.850, 75 12.715
2	38 54.507, 75 12.261



Loran C	27212.5, 42716
NW Corner	27202, 42706
NE Corner	27202, 42700
SW Corner	27212.5, 42710
DGPS	
NW Corner	38 55.2191, 75 12.7668
NE Corner	38 54.3109, 75 11.3235
SE Corner	38 53.7963, 75 11.5401
SW Corner	38 55.2191, 75 12.7668

Legend	
○	0 - 5 Units
▲	6 - 15 Units
□	> 15 Units

Site #6

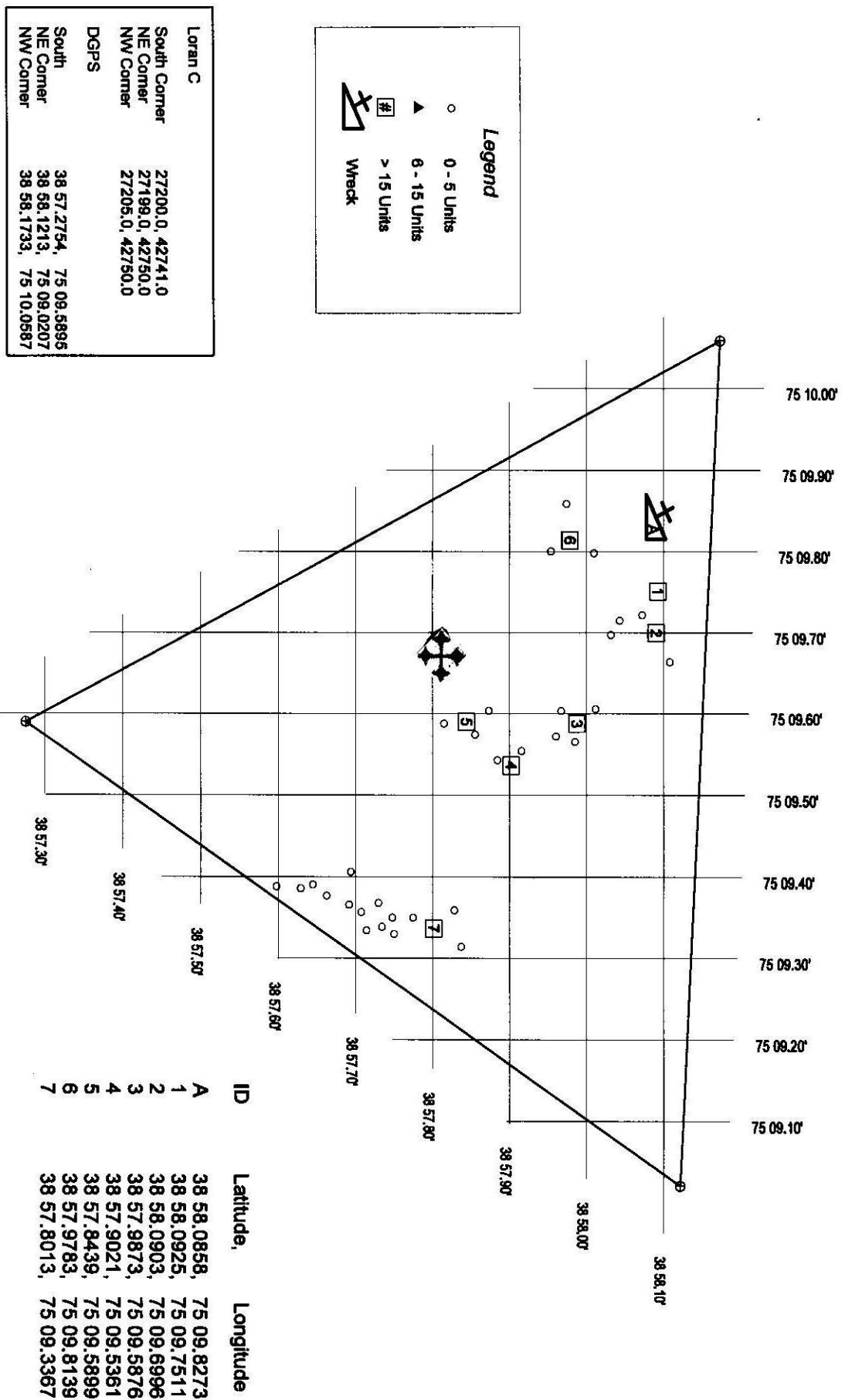
Total area of site	-	0.28 square nautical miles
Depth range	-	20-43' (mean low water)
Distance from port	-	7 nautical miles from Mispillion River 10 nautical miles from Roosevelt Inlet
Invertebrate Colonization	-	blue mussel community
Fish	-	sea bass, tautog, scup, weakfish, striped bass, bluefish

Deployments

1. 500 tons concrete culvert deployed from a moving barge - 10/20/95.
2. 500 tons concrete culvert deployed from an anchored barge - 6/21/96.
N 38° 57.776'
W 075° 09.349'
3. 900 tons of concrete deployed from an anchored barge 9/25/99. Depth 39'.
N 38° 57.814 – 877'
W 075° 09.577 – 588'
4. 900 tons of concrete deployed from an anchored barge 11/19/99. Depth 43'.
N 38° 57.900 – 913'
W 075° 09.515 – 548'
5. 1,000 tons of concrete deployed on 8/9/02. Depth 41'.
N 38° 58.108'
W 075° 09.725'
6. 1,119 tons of concrete deployed on 4/3/03. Depth 40'.
N 38° 57.960'
W 075° 09.842'
7. 1,636 tons of concrete deployed on 11/02/03. Depth 40'.
N 38° 57.988'
W 075° 09.582'
8. 120' x 40' steel barge (Bucchannon) was deployed 3/18/04.
N 38° 58.086'
W 075° 09.825'
9. 1,226 tons of concrete deployed on 2/23/05.
N 38° 57.820'
W 075° 09.658'
10. 1,500 tons of concrete deployed on 6/25/06.
N 38° 57.916'
W 075° 09.655'

Notes

Delaware Artificial Reef Site 6 Material Distribution



Site #7

Total area of site	-	0.41 square nautical miles
Depth range	-	30-40' (mean low water)
Distance from port	-	8 nautical miles from Mispillion River 9 nautical miles from Roosevelt Inlet
Invertebrate Colonization	-	blue mussel community
Fish	-	sea bass, tautog, scup, weakfish, striped bass, bluefish

Deployments

- 500 tons of concrete culvert deployed from a moving barge 10/20/95.
- 500 tons of concrete culvert deployed from an anchored barge 5/3/96.
N 38° 56.511'
W 075° 08.896'
- 950 tons of concrete deployed from an anchored barge 8/12/98. Approximate depth 38'.
N 38° 56.519' - .525'
W 075° 08.535' - .545'
- 700 tons of concrete plus 35' and 42' steel vessels ("P3" and "Dolphin") 4/19/99. Depth 42'.
N 38° 56.460 - 467'
W 075° 08.508 - 537'
- 900 tons of concrete deployed from an anchored barge 7/16/99. Depth 36'.
N 38° 56.648 - 669'
W 075° 08.839 - 846'
- 1,100 tons of concrete deployed on 12/27/01.
N 38° 56.500'
W 075° 08.200'
- 1,098 tons of concrete deployed on 8/20/02. Depth 38'.
500+ tons 500+ tons
N 38° 56.540' N 38° 56.470'
W 075° 08.680' W 075° 08.680'
- 1,085 tons of concrete deployed on 5/15/03.
N 38° 56.828'
W 075° 08.629'
- 1,697 tons of concrete deployed on 11/17/03.
N 38° 56.653'
W 075° 08.604'
- 1,587 tons of concrete deployed on 12/23/04.
N 38° 56.517'
W 075° 08.237'

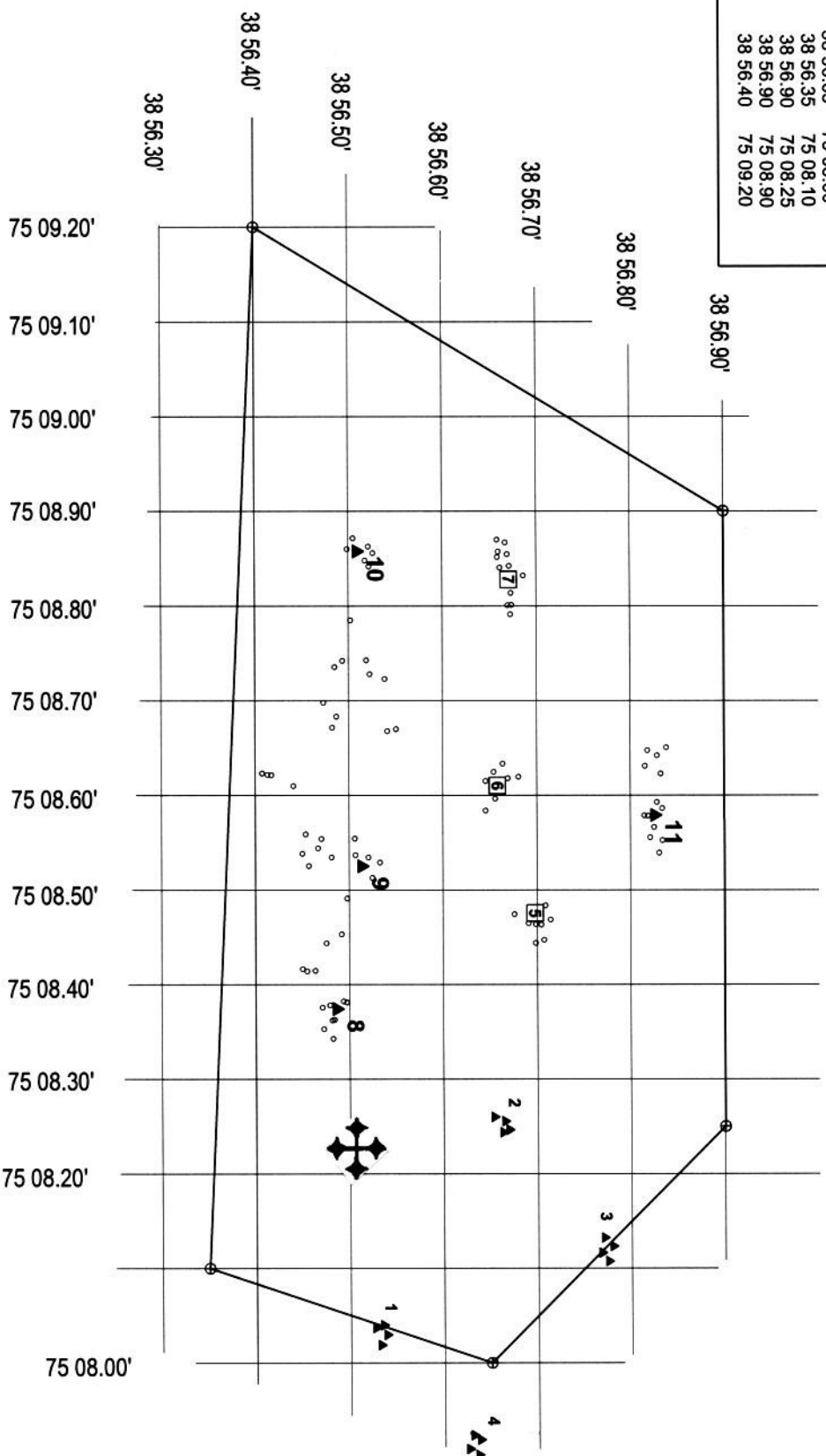
Notes

Delaware Artificial Reef Site 7 Material Distribution

Loran C	27188.5, 42733.0
East Corner	27189.0, 42730.0
SE Corner	27191.5, 42736.0
NW Corner	27195.0, 42736.0
SW Corner	27195.0, 42730.0
DGPS	
East Corner	38 56.65 75 08.00
SE Corner	38 56.35 75 08.10
NE Corner	38 56.90 75 08.25
NW Corner	38 56.90 75 08.90
SW Corner	38 56.40 75 09.20

Legend	
○	0 - 5 Units
▲	6 - 15 Units
□	> 15 Units

ID	Latitude	Longitude
1	38 56.542	75 08.058
2	38 56.675	75 08.275
3	38 56.772	75 08.155
4	38 56.651	75 08.938
5	38 56.698	75 08.476
6	38 56.658	75 08.610
7	38 56.671	75 08.828
8	38 56.488	75 08.374
9	38 56.515	75 08.525
10	38 56.511	75 08.857
11	38 56.828	75 08.579



Site #8

Total area of site	-	0.96 square nautical miles
Depth range	-	29-72' (mean low water)
Distance from port	-	4.5 nautical miles from Roosevelt Inlet 8.5 nautical miles from Mispillion River
Invertebrate Colonization	-	blue mussel community
Fish	-	tautog, seabass, scup, weakfish, striped bass, bluefish

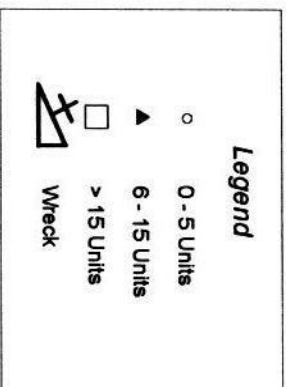
Deployments

1. 550 tons of donated concrete and steel material donated by STAR Enterprise deployed from a moving barge 3/1/95.
2. 500 tons of concrete culvert deployed from a moving barge 8/25/95.
3. 980 tons of donated concrete and steel material donated by STAR Enterprise deployed from an anchored barge 1/23/96.
N 38° 51.892'
W 075° 08.054'
4. 70' commercial tugboat "Golden Eagle" sunk 8/96 at
N 38° 52.080'
W 075° 08.094'
5. 800 tons of concrete deployed from an anchored barge 6/18/98. Approximate depth 28'.
N 75° 08.491' - .495'
W 038° 51.887' - .892'
6. 800 tons of concrete deployed from an anchored barge 6/5/99. Depth 41'.
N. 38° 51.948 – 963'
W 075. 08.184 – 193'
7. 935 tons of concrete deployed from an anchored barge 7/8/99. Depth 37'.
N 38° 52.157 – 168'
W 075° 08.400 – 418'
8. 1,000 tons of concrete deployed on 4/24/01.
N 38° 52.100'
W 075° 08.800'
9. 1,010 tons of concrete deployed on 9/13/02. Depth 32'.
N 38° 52.176 – 261'
W 075° 09.024 – 102'
10. 1,000 tons of concrete deployed on 12/13/02. Depth 30'.
N 38° 52.066'
W 075° 08.663'
11. 1,138 tons of concrete deployed on 5/21/03.
N 38° 51.749'
W 075° 08.191'
12. 1,091 tons of concrete deployed on 8/7/03.
N 38° 52.356'
W 075° 09.350'

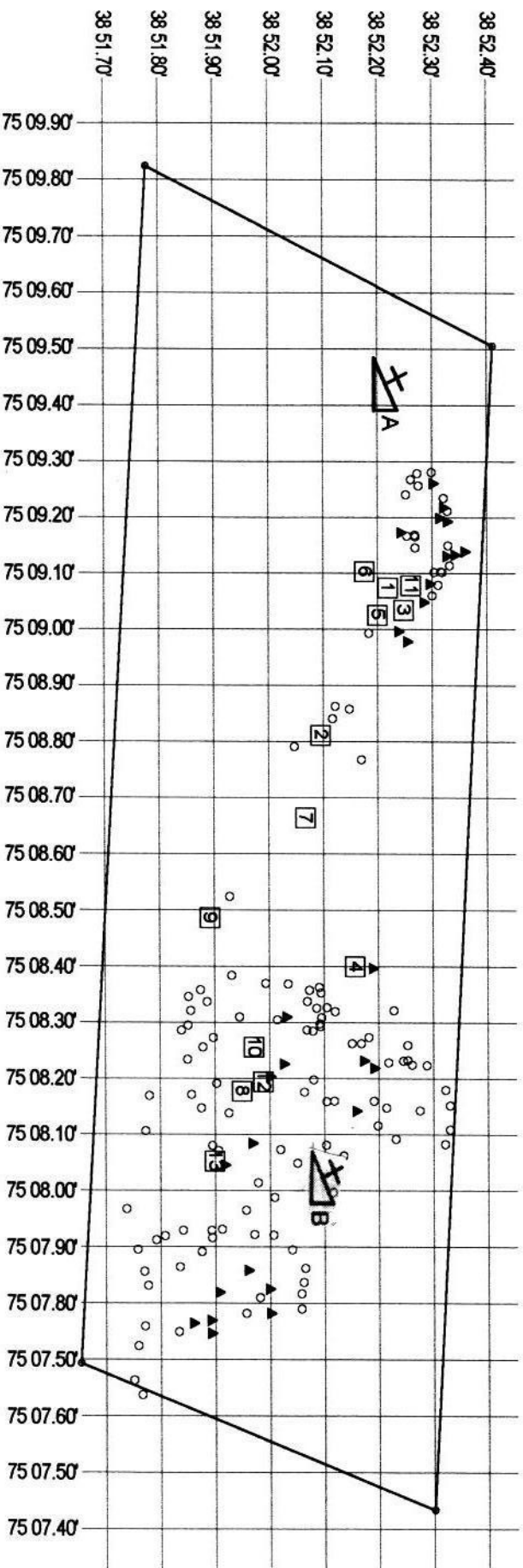
Notes

Delaware Artificial Reef Site 8 Material Distribution

Loran C	27187, 42685
NW Corner	27175, 42685
NE Corner	27175, 42678
SE Corner	27187, 42678
SW Corner	
DGPS	
NW Corner	38 52.4108, 75 09.5059
NE Corner	38 52.3011, 75 07.4332
SE Corner	38 51.6536, 75 07.6930
SW Corner	38 51.7775, 75 09.8236



ID	Latitude	Longitude
A	38 52.215	75 09.436
B	38 52.082	75 08.107
1	38 52.220	75 09.070
2	38 52.095	75 08.811
3	38 52.247	75 09.033
4	38 52.156	75 08.399
5	38 52.200	75 09.024
6	38 52.176	75 09.102
7	38 52.066	75 08.663
8	38 51.948	75 08.176
9	38 51.891	75 08.485
10	38 51.971	75 08.255
11	38 52.261	75 09.077
12	38 51.988	75 08.193
13	38 51.899	75 08.051



Site #9

Total area of site	-	0.63 square nautical miles
Depth range	-	52-63' (mean low water)
Distance from port	-	12 nautical miles from Roosevelt Inlet 4.5 nautical miles from Indian River Inlet
Invertebrate Colonization	-	blue mussel community
Fish	-	tautog, seabass, scup, weakfish, bluefish, striped bass

Deployments

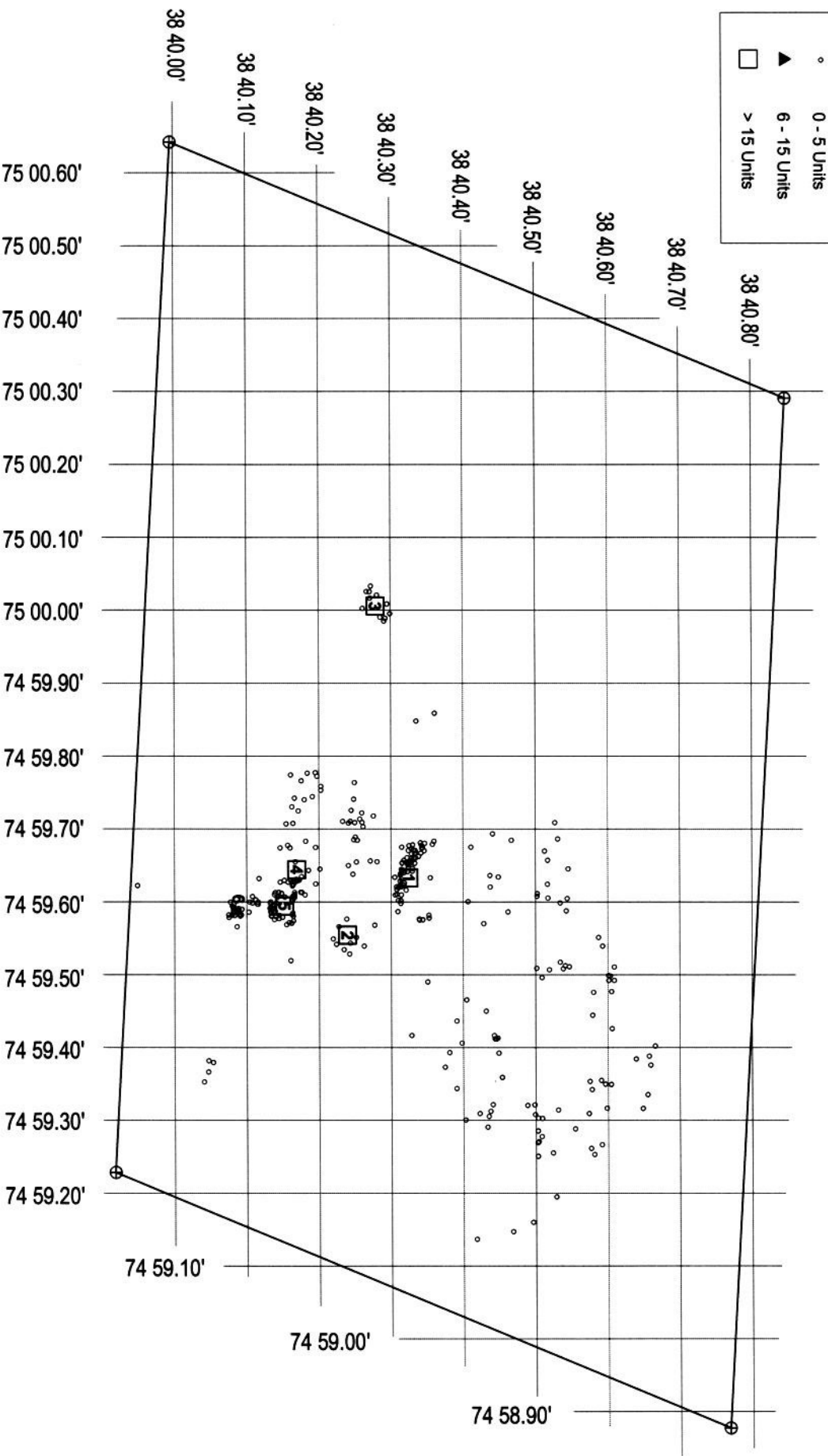
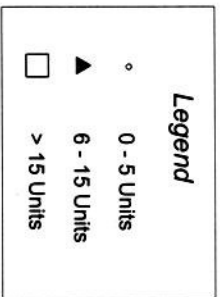
1. 500 tons of concrete culvert - deployed from a moving barge 8/25/95.
2. 1000 tons of concrete culvert and stabilized tires deployed on 4/15/97 near
N 38° 40.235'
W 074° 59.718'
3. 900 tons of stabilized tires deployed on 6/26/97. Approximate depth 60'.
N 38° 40.062' - .081'
W 074° 59.561' - .581'
4. 800 tons of concrete culvert and stabilized tire units deployed on 7/31/98. Approximate depth 58'.
N 38° 40.151'
W 074° 59.588'
5. 500 tons of cement mixer drums deployed 7/6/01
N 38° 40.351'
W 074° 59.655'
6. 1,100 tons of concrete deployed 6/24/03. Depth 62'.
N 38° 40.231'
W 074° 59.541'
7. 1,093 tons of concrete deployed 8/21/03. Depth 60'.
N 38° 40.277'
W 075° 00.214'

Notes

Delaware Artificial Reef Site 9 Material Distribution

ID	Latitude	Longitude
1	38-40.324	74-59.633
2	38-40.239	74-59.554
3	38-40.029	74-59.006
4	38-40.018	74-59.644
5	38-40.152	74-59.594
6	38-40.083	74-59.589

Loran C	DGPS
NW Corner	38-39.996
NE Corner	38-40.847
SE Corner	38-39.917
SW Corner	38-40.768
	75-00.642
	75-00.291
	74-59.229
	74-58.877



Site #10

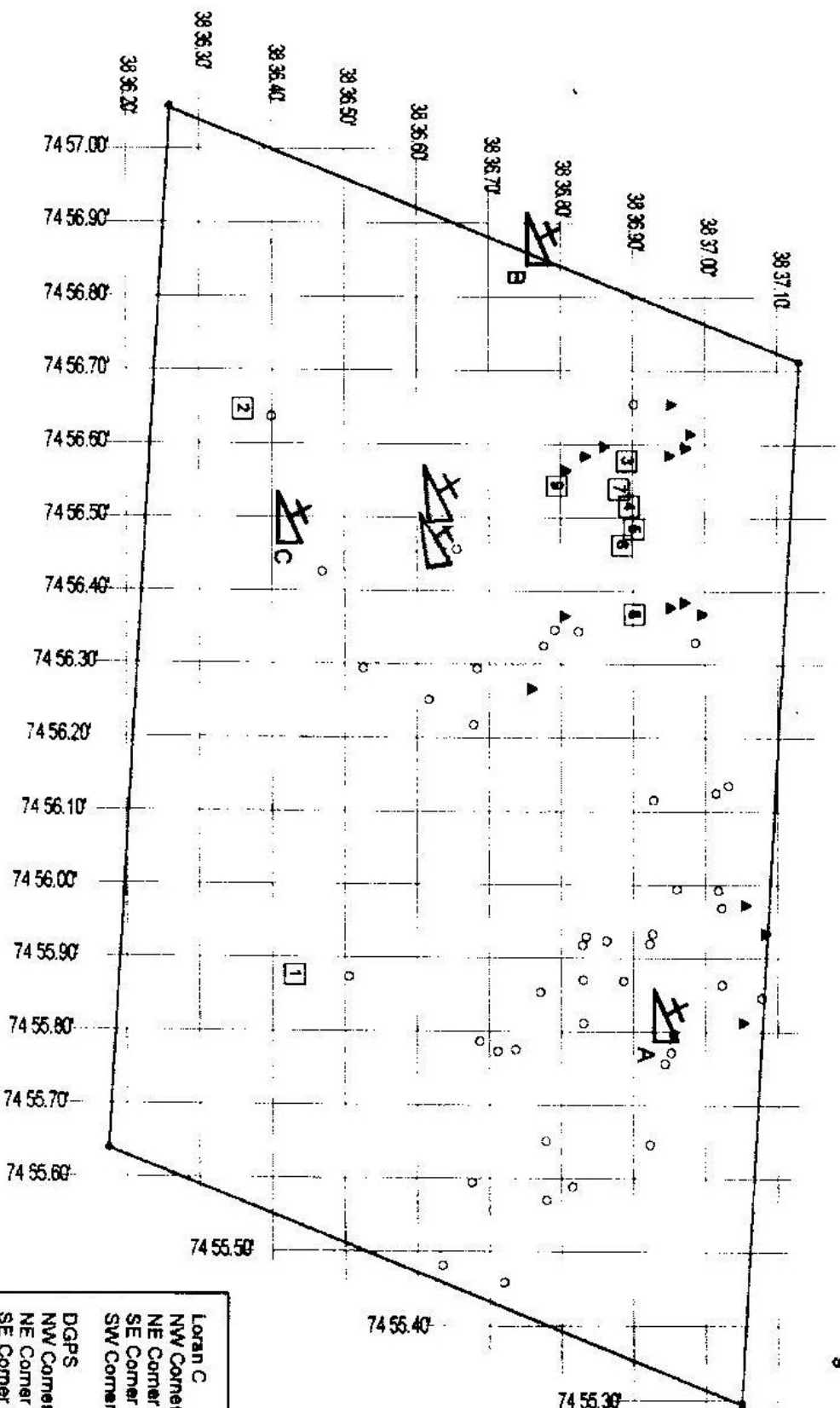
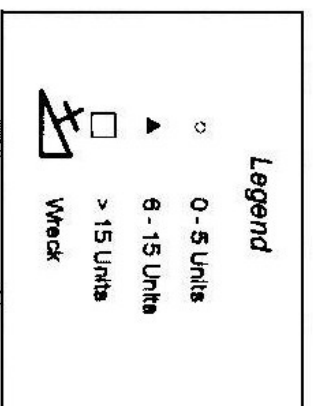
Total area of site	-	0.69 square nautical miles
Depth range	-	56-66' (mean low water)
Distance from port	-	5.5 nautical miles from Indian River Inlet
Invertebrate Colonization	-	blue mussel community
Fish	-	sea bass, tautog, scup, weakfish, bluefish

Deployments

1. Previously existing wreck (barge?)
N 38° 36.934'
W 074° 55.821'
2. 1000 tons of concrete culvert and stabilized tire units deployed from a moving barge 8/25/95.
3. 1000 tons of stabilized tire units deployed from a moving barge 11/18/95.
4. 1000 tons of concrete culvert and stabilized tire units deployed from an anchored barge 8/5/96.
N 38° 36.890'
W 074° 56.454'
5. 850 tons of ballasted tire units on 3/31/98. Approximate depth 60'.
6. 850 tons of concrete culvert and stabilized tire units deployed on 5/19/98. Approximate depth 61'.
N 38° 36.365'
W 074° 56.600'
7. 875 tons of ballasted tire units deployed from an anchored barge 8/19/99. Depth 64'.
N 38° 36.432 – 434'
W 074° 55.871 – 874'
8. Yon 80 Navy barge sunk 6/18/02. Depth 62'.
N 38° 36.424'
W 074° 56.498'
9. 1,190 tons of concrete deployed 11/20/02. Depth 60'.
N 38° 36.589'
W 074° 56.469'
10. 5.6 nautical miles of marine cable deployed 5/11/03. Depth 62'.
N 38° 36.750'
W 074° 55.670'
11. 1,072 tons of concrete deployed 7/9/03.
N 38° 36.738'
W 074° 55.965'
12. 1,039 tons of concrete deployed 7/26/03.
N 38° 36.857'
W 074° 56.161'
13. "Mr. G" and "Rusty Pusher" (small tug and push boat) 3/4/09
N 38° 36.649'
W 074° 56.646'
14. YC 725 a 110' Navy barge sunk 03/10/10
N 38° 36.608'
W 074° 56.494'
15. 95' barge. Sunk 03/10/10
N 38° 36.608'
W 074° 56.494'

Notes

Delaware Artificial Reef Site 10 Material Distribution



ID	Latitude	Longitude
A	38 36.943	74 55.819
B	38 36.769	74 56.878
C	38 36.424	74 56.498
1	38 36.430	74 55.876
2	38 36.359	74 56.648
3	38 36.891	74 56.577
4	38 36.894	74 56.515
5	38 36.901	74 56.484
6	38 36.884	74 56.462
7	38 36.880	74 56.538
8	38 36.901	74 56.367
9	38 36.794	74 56.542

Loran C	
NW Corner	27060, 42520
NE Corner	27072, 42520
SE Corner	27072, 42510
SW Corner	27060, 42510
DGPS	
NW Corner	38 37.1300, 74 56.7113
NE Corner	38 37.0492, 74 56.2940
SE Corner	38 36.1749, 74 56.6392
SW Corner	38 36.1749, 74 56.6392

Site 11

Total area of site	-	1.3 square nautical miles
Depth range	-	68-88' (mean low water)
Distance from port	-	16.5 nautical miles from Indian River Inlet
Invertebrate Colonization	-	blue mussel community, northern coral community
Fish	-	sea bass, tautog, flounder, scup

Deployments

- 26 military track vehicles deployed in 3 tightly grouped clusters 1/96.
A. N38° 40.702' W 074°43.531' B. N38° 40.703' W 074°43.518' C. N38° 40.718' W 074° 43.550'
- 40 military vehicles deployed in clusters.
A (7 vehicles) N38°40.648'; W074°43.535' B (13 vehicles) N38°40.561' - .576'; W074°43.487' - .511'
C (9 vehicles) N38°40.618' - .641'; W074°43.374 - .379' D (11 vehicles) N38°40.624' - .635'; W074°43.430' - .448'
- 850 tons of ballasted off road tire units deployed 7/24/98. depth 90', N38° 40.389' - 415'; W074° 43.433' - .453'
- 90' commercial tug "Delilah" sunk 1/15/99, N38° 40.433'; W074° 43.386'
- 1,100 tons ballasted tires deployed from a moving barge 2/11/99, N38° 40.490' -530'; W074° 43.450 -500'
7. YC 1479 (160' Navy barge) sunk 10/20/00, N38° 40.365'; W074° 43.818'
- 90' Commercial tug "Margie Ann" sunk 6/19/01. Depth 90', N38° 40.322'; W074° 44.132'
- 85' shrimp trawler "Frieda Marie" sunk 01/16/10. N38°40.606'N W074°30.200'
- 74' push boat, "Sandy Point" sunk 03/10/10. N38°40.667' W074°43.970'

Subway cars

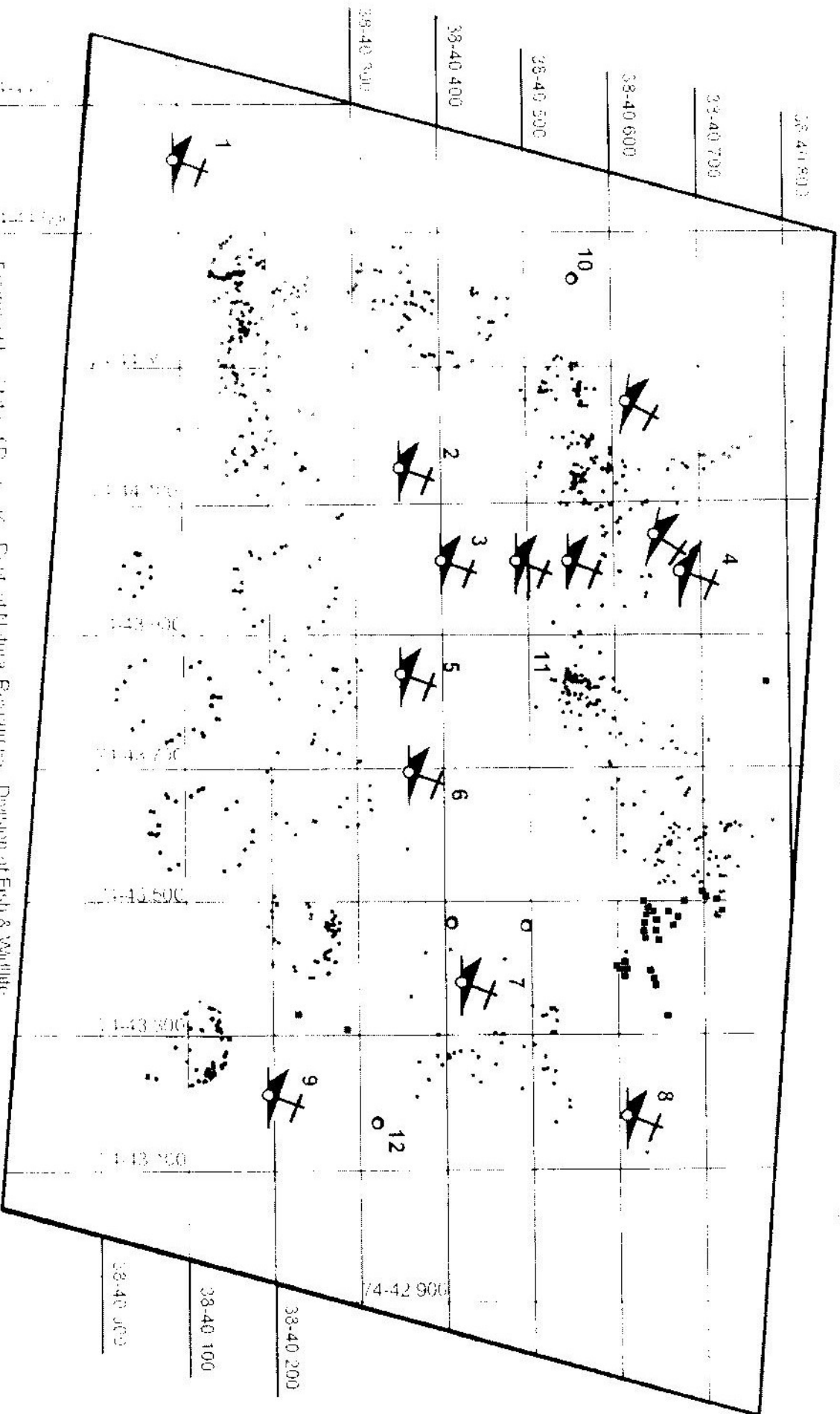
There are 714 subway cars on the site which can easily be found using this chart and your fathometer. The following coordinates are the densest concentrations identified by the sidescans sonar contractor:

- | | |
|-----------------------------------|-----------------------------------|
| 10. N 38° 40.688'; W 074° 43.576' | 11. N 38° 40.567'; W 074° 43.805' |
| 12. N 38° 40.534'; W 074° 44.272' | 13. N 38° 40.200'; W 074° 44.401' |
| 14. N 38° 40.218'; W 074° 43.862' | 15. N 38° 40.263'; W 074° 43.468' |
| 16. N 38° 40.372'; W 074° 44.389' | |
15. Margaret 85' tug sunk 6/28/07 Depth 88' N 38° 40.361'; W 074° 43.672'
 - William C. Snow 55' tug sunk 6/2/08 Depth 84' N 38° 40.105'; W 074° 44.600'
 - Fels Points 110' tug sunk 6/2/08 Depth 77' N 38° 40.212'; W 074° 43.196'
 - Cittie Point 95' tug sunk 6/2/08 Depth 81' N 38° 40.624'; W 074° 43.173'
 - Bay Tide 110' tug sunk 1/30/09 38° 40. 54' N; 074° 43.957' W
 - Crazy Horse 77' trawler sunk 1/30/09 38° 40. 490' N; 074° 43.957' W

Delaware Artificial Reef Red Bird Reef Material Distribution

1	38-40.411 / 74-43.686	6	38-40.378 / 74-43.686
2	38-40.369 / 74-44.142	7	38-40.434 / 74-43.377
3	38-40.413 / 74-44.007	8	38-40.619 / 74-43.176
4	38-40.689 / 74-43.986	9	38-40.209 / 74-43.198
5	38-40.369 / 74-43.834	10	38-40.550 / 74-44.434
		11	38-40.560 / 74-43.812
		12	38-40.321 / 74-43.175

- Military Truck & Vehicle
- Shipwreck
- Tree Limb
- Subsea/Sea



DEL-JERSEY-LAND INSHORE SITE

Total area of site - 1.00 square nautical miles
Depth range - 121-131'
Distance from port - 26 NW from Indian River Inlet
30 NW from Cape May, NJ Inlet
30 NW from Ocean City, MD Inlet
Invertebrate Colonization - Northern coral, Whip coral, Anemone community
Fish - black sea bass, ocean pout, winter flounder, red hake, bluefish,
Bluefin tuna, shark

Gregory Poole 175' Minesweeper/Menhaden harvesting
vessel (see front cover) sunk 12/2/2007
38° 30. 910' N
074° 30. 597' W

Atlantic Mist 185' Menhaden vessel sunk 1/16/10
38° 31. 063' N
074° 30. 271' W

Scattered subway cars in the vicinity of the following coordinates:

44 cars 38° 31.600' N
074° 30.600' W 8/2/09
44 cars 38° 31.600' N
074° 30.400' W 8/30/09
44 cars 38° 31.500' N
074° 30.800' W 9/30/09
44 cars 38° 31.600' N
074° 30.800' W 9/12/09
44 cars 38° 31.68' N
074° 30.384' W 11/10/09
44 cars 38° 31.600' N
074° 30.200' W 01/28/10
24 cars 38° 31.500' N
074° 30.500' W 04/22/10

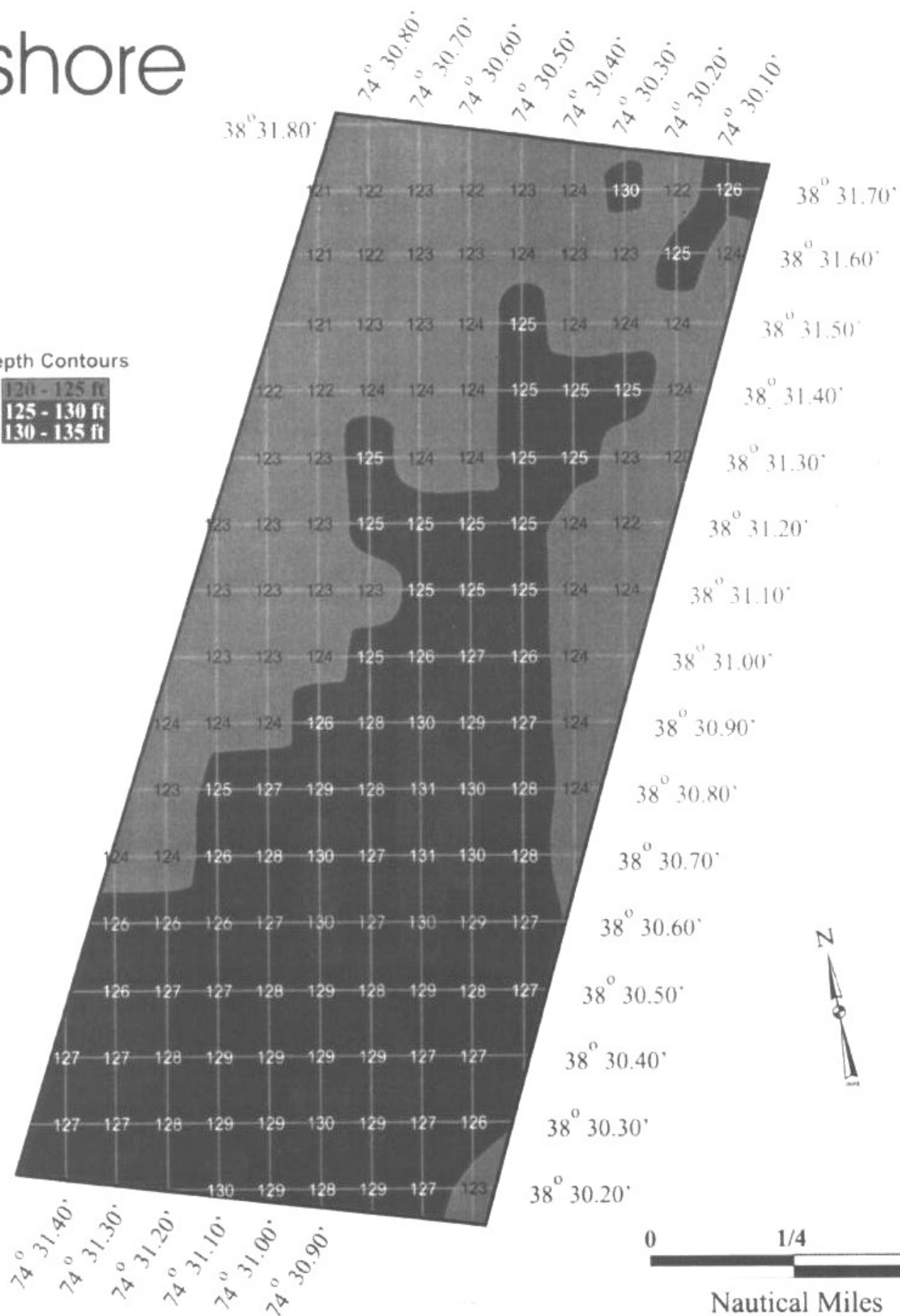


Del-Jerseyland

Inshore

Depth Contours

120 - 125 ft
125 - 130 ft
130 - 135 ft



STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
& ENVIRONMENTAL CONTROL
DIVISION OF FISH & WILDLIFE
FISHERIES BUILDING
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